

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appl. No. : 10/511,694  
Applicant : Mussawir-Key, Frederick Wade  
Filed : April 28, 2005  
Title : CHEESE SUBSTITUTES

Conf. No. : 4057  
Art Unit : 1794  
Examiner : Wong, Leslie A.

Customer No. : 00116  
Docket No. : MORE-37106

**APPEAL BRIEF**

This brief is filed pursuant to the Notice of Appeal filed April 16, 2009. The two-month period for filing this brief pursuant to 37 CFR § 41.37(a)(1) expires on June 16, 2009. Pursuant to 37 CFR § 41.37(a)(2), this appeal brief is accompanied by the requisite fee of \$270 under 37 CFR § 41.20(b)(2). If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 16-0820, our Order No. MORE-37106.

**REAL PARTY IN INTEREST**

The real party in interest in the subject proceeding is Morehands Limited.

**RELATED APPEALS AND INTERFERENCES**

There are no known related appeals or interferences that may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**STATUS OF CLAIMS**

All of the claims in the proceeding (claims 1-19 and 21-35) stand rejected and are being appealed.

**STATUS OF AMENDMENTS**

No amendments to the claims have been filed subsequent to the final rejection.

**SUMMARY OF CLAIMED SUBJECT MATTER**

**Claim 1:**

A cheese substitute formed by blending, by weight, 60-95% bland edible particulate, 1-25% non-liquid (p. 2, ll. 7-9; p. 4, ll. 18-24; p. 6, ll. 13-14) vegetable fat component, 1-15% salt component and parmesan flavoring (p. 2, ll. 1-2, 7-13).

**Claim 17:**

A method for producing a cheese substitute comprising softening but not liquefying (p. 2, ll. 7-9; p. 4, ll. 18-24; p. 6, ll. 13-14) a volume of fully hydrogenated or partially hydrogenated vegetable fat component and blending that softened, non-liquid (p. 2, ll. 7-9; p. 4, ll. 18-24; p. 6, ll. 13-14) vegetable fat component with bland edible particulate, a salt component and parmesan flavouring to form a composition comprising, by weight, 60-95% bland edible particulate, 1-25% vegetable fat component, 1-15% salt component and parmesan flavouring to a desired proportion until a crumbly product is formed by the coagulation of the vegetable fat component with the other ingredients (p. 2, ll. 6-15).

**GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1-5, 7, 9, 10, 12-19, 21-24, 26, 28, 29 and 31-35 stand rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Blackstock et al. (hereinafter “Blackstock”) (US 3689290).

Claims 6, 8, 11, 25, 27 and 30 stand rejected under 35 U.S.C. §103(a) as being obvious over Blackstock in view of JP 03067544 (hereinafter “JP ‘544”) and GB 1601672 (hereinafter “GB ‘672”).

## **ARGUMENT**

### ***Claims 1-5, 7, 9, 10, 12-19, 21-24, 26, 28, 29 and 31-35 are patentable over Blackstock***

Applicant submits that claims 1-5, 7, 9, 10, 12-19, 21-24, 26, 28, 29 and 31-35 are not anticipated by or rendered obvious over the cited Blackstock reference for at least the following reasons. As discussed below, independent claim 1 is being argued as the representative claim for the group of claims including 2-5, 7, 9, 10 and 12-16, all of which depend directly or indirectly from claim 1. Similarly, independent claim 17 is being argued as the representative claim for the group of claims including 18, 19, 21-24, 26, 28, 29 and 31-35, all of which depend directly or indirectly from claim 17.

### ***Independent Claim 1***

Blackstock is being relied on to teach the use of any suitable fat, including hydrogenated fats, for preparing a cheese substitute (final Office action, p. 2). However, as noted by the Examiner (final Office action, p. 2), the present claims differ from Blackstock in that the claimed invention requires a cheese substitute being formed by blending a non-liquid vegetable fat. The final Office action recites that the “non-liquid” limitation would be inherent and/or obvious to the teaching of Blackstock because the same components are used. Applicants respectfully disagree.

The use of the same components does not anticipate and/or render obvious that the components are being used in different physical states (i.e. liquid and non-liquid). Blackstock teaches preparing synthetic cheese products by using a liquefied fat or blend thereof. More specifically, regardless of fat being used, Blackstock clearly instructs one skilled in the art to

heat and liquefy that fat before using it to prepare a cheese product. This fat-liquefying step is repeatedly disclosed throughout Blackstock.

For instance, all of the Examples (i.e. I, II and III) of Blackstock heat and liquefy the fat to prepare a synthetic cheese product. Example I forms a liquid mixture by heating various oils and vegetable fat at 140° F (col. 4, ll. 35-40). This liquid fat mixture is subsequently blended with a separately formed dry mixture (col. 4, ll. 60-64). Examples II and III followed the fat-liquefying step of Example I, except that various oils were substituted for the fat and oil used in Example I (col. 5, ll. 2-3 and 30-31). These Examples uniformly teach one process for preparing a synthetic cheese product, wherein that process heats and liquefies the fat and/or oil before it is blended with the remaining dry ingredients. In view of the Examples of Blackstock, there is no doubt that one skilled in the art would conclude that a fat and/or oil must be liquefied before being used to form a synthetic cheese product. The remaining disclosure of Blackstock confirms use of the disclosed fat-liquefying step of the Examples.

Blackstock describes the synthetic cheese as food particles (col. 1, ll. 65-68). These synthetic cheese particles include a substrate carrier having a layer of fat on the surface of the substrate and an exterior powder coating over the fat layer (col. 1, ll. 70-72 and col. 2, ll. 1-5). To apply this fat layer, Blackstock discloses that it is preferable to blend the dry carrier component with a liquid mixture containing the desired fat (col. 3, ll. 68-71). The liquid fat mixture is prepared at elevated temperatures to bring the fat into the liquid state to facilitate blending (col. 3, ll. 72-75). Thus, Blackstock's disclosed process for forming the synthetic cheese particles exactly follows the fat-liquefying step that is utilized in all of the Examples. Not only does Blackstock repeatedly teach that the fat should be liquefied before using it to prepare a synthetic cheese product, but nothing in Blackstock suggests that the fat could alternatively be

blended in a solid (e.g., softened) state. This feature is clearly not inherent in Blackstock, which disclosure consistently and exclusively teaches liquefying the fat component. The step of blending a softened, solid fat component is not inherent from a disclosure that discloses blending a liquefied fat.

In contrast to the entire disclosure of Blackstock, it appears that the Examiner is relying solely on the general disclosure that Blackstock's fat can be any suitable fat, which the Examiner argues could include non-liquid fats. However, Blackstock teaches that no matter which fat is being used, that fat is to be in a liquid state when used to prepare synthetic cheese products. This is further evidenced by Blackstock's description of the fats that may be used. Blackstock discloses that the melting point of the fat is preferably below 100° F, which clearly suggests that the fat is to be used as a liquid (col. 2, ll. 51-52). Blackstock further discloses that oils which are solid above this temperature can be used, but this statement is characterized to also include a fat-liquefying step (col. 2, ll. 46-62). That is, Blackstock discloses that if the concentration of fat in the product exceeds 40 weight percent, the product becomes "wet" and "sloppy" and is unsuitable (col. 2, ll. 55-57). A "wet" and "sloppy" product would result only if liquefied fats were used to form the product. If Blackstock contemplated using non-liquid fats (i.e. softened or solid) as claimed, the resulting synthetic cheese product would not be described as "wet" and "sloppy."

In view of Blackstock's description of the cheese products of the invention as the fat content varies (e.g., "wet" and "sloppy"), and the fact that every Example therein teaches liquefying fats, and Blackstock's description of the liquid fat blending procedure noted above, it is clear that Blackstock does not inherently teach the use of non-liquid vegetable fat. For a feature to be inherent in a prior art reference, the feature must be present in that reference of

necessity, it is not enough to say the feature might be present. See MPEP 2112.III, citing *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999), “To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” Clearly, a non-liquid fat is not inherent in Blackstock under the correct standard for proving inherency. In fact, Blackstock teaches the opposite; that the fat is used in the liquid state.

Moreover, it is apparent that not only is one skilled in the art specifically instructed to liquefy the fats, as clearly laid out in the Examples, but nothing in Blackstock motivates that person to do otherwise. When Blackstock’s general disclosure of fats is considered as a whole and in context of the specification and Examples, one skilled in the art is instructed to liquefy fats to form a liquid mixture, rather than using the claimed “non-liquid” vegetable fat as recited in claim 1. The claimed blending of a non-liquid fat will produce a different product, not the fat-encapsulated particle of Blackstock, but a crumbly mixture. That is, the non-liquid fat and edible particulate components of the claimed method act as a mixing matrix in which the parmesan flavouring is held (p. 3, ll. 23-34). Such a matrix bulks up the parmesan flavouring to approximate the consistency of real parmesan cheese (p. 4, ll. 7-10). As the non-liquid fat coalesces from a softened form, a crumbly mass is rendered that is reminiscent of dairy-produced parmesan cheese (p. 4, ll. 22-24). By blending all of the claimed ingredients together in non-liquid form, the resultant product has a texture that feels creamier in the mouth, and a consistency similar to that of actual grated cheese.

In contrast to the claimed product, the synthetic cheese product of Blackstock is described as a blend of food particles that include a substrate carrier having layer of fat on the surface of the substrate and an exterior powder coating over the fat layer (col. 1, ll. 65-72 and col. 2, ll. 1-5). The fact that Blackstock's fat-encapsulated particles are provided with an exterior powder coating highlights a disadvantage of the prior art that is resolved by the claimed method. By keeping the fat in a softened but non-liquid state when preparing the cheese substitute, a relatively dry final product of crumbly consistency is produced. The dry, crumbly consistency of the claimed product requires no powder coating as used in Blackstock, which is necessary to prevent its synthetic cheese particles from a large agglomerated mass because of their "wet" state (col. 3, ll. 35-43). When the fat component is blended in a non-liquid state as claimed, the agglomeration problem encountered with Blackstock's fat-encapsulated cheese particles is eliminated. Hence, no such powder coating is needed because the liquefying step of Blackstock is absent by the claimed blending of a non-liquid fat. This unique solution that avoids the need for a powder coating as in Blackstock is additional evidence of non-obviousness. In other words, the cheese substitute resulting from the claimed blending of a non-liquid fat has a texture and feel to that of actual grated cheese, which has no powder coating. Because Blackstock does not teach or suggest the method of blending a non-liquid fat, and the synthetic cheese product of Blackstock is clearly distinguishable from the claimed product because a non-liquid fat is used. Accordingly, the applicants respectfully request that the anticipation and obviousness rejections of claim 1 based on Blackstock be withdrawn.

***Independent Claim 17***

Claim 17 is directed to a method for producing a cheese substitute comprising, in part, softening but not liquefying a vegetable fat that is subsequently blended in its non-liquid state with bland edible particulate, salt and parmesan flavouring to form a crumbly product. As noted above, the present claims differ from Blackstock in that claim 17 also requires a cheese substitute being formed by blending a non-liquid vegetable fat (final Office action, page 2). The final Office action recites that the “non-liquid” limitation would be inherent and/or obvious to the teaching of Blackstock because the same components are used. Again, the applicants respectfully disagree.

The reasons discussed above with regard to claim 1 also hold true for claim 17. Claim 17 specifically requires the use of a non-liquid vegetable fat, whereas the entire disclosure of Blackstock instructs one skilled in the art to either choose a liquid fat or liquefy a solid fat when blending to form a synthetic cheese product. Blackstock does not suggest or motivate one skilled in the art to use non-liquid fats, nor does it provide an example of making a synthetic cheese product in such a manner. Because the fats of Blackstock are always used in the liquid state, and there is no motivation to do otherwise, Blackstock does not anticipate or render obvious the claimed method of using a “non-liquid” fat.

Also as discussed above, the anticipation/obviousness rejections are further overcome by virtue of the differences of the claimed method for producing a cheese substitute that blends a non-liquid fat with a bland edible particulate, as compared to Blackstock. In summary, the dry, crumbly consistency resulting from the claimed method requires no powder coating as used in Blackstock, which is necessary to prevent its fat-encapsulated cheese particles from sticking together and forming an agglomerated mass. When the fat component is used in a non-liquid

state as claimed, the agglomeration problem associated with Blackstock's sticky cheese particles is eliminated. Thus, the cheese substitute resulting from the claimed method has a texture and feel to that of actual grated cheese, which has no powder coating. Because Blackstock does not teach or suggest the method of using non-liquid fat, and the synthetic cheese product of Blackstock is clearly distinguishable from the product of the claimed method because a non-liquid fat is used. Accordingly, the applicants respectfully request that the anticipation and obviousness rejections of claim 17 be withdrawn.

***Claims 6, 8, 11, 25, 27 and 30 are patentable over Blackstock in view of JP '544 and GB '672***

The final Office action cites JP '544 to teach the use of soy in the flour form for preparing cheese products, and GB '672 to teach the use of palm oil for preparing the same. Claims 6, 8, 25 and 27 require that the bland edible particulate be a soya product in the flour form, whereas claims 11 and 30 require that the vegetable fat include palm oil. Regardless of the cited disclosures of JP '544 and GB '672, the applicant submits that the rejection of claims 6, 8, 11, 25, 27 and 30 is overcome by the virtue that Blackstock does not teach or suggest the use of a non-liquid fat, which is required by claims 1 and 17. Claims 6, 8, 11, 25, 27 and 30 directly or indirectly depend from independent claims 1 and 17, which are believed to be patentable over Blackstock, as described above. Because Blackstock fails to teach or suggest the non-liquid claim limitation required by claims 1 and 17, the applicants respectfully request that the obviousness rejection of claims 6, 8, 11, 25, 27 and 30 be withdrawn.

## CONCLUSION

For at least the reasons discussed herein, essential elements required to establish a prima facie rejection were omitted; and there exist clear fact and legal deficiencies in the rejections of record. Accordingly, reversal of the present rejections is requested.

Respectfully submitted,  
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## **CLAIMS APPENDIX**

Claim 1: A cheese substitute formed by blending, by weight, 60-95% bland edible particulate, 1-25% non-liquid vegetable fat component, 1-15% salt component and parmesan flavouring.

Claim 2: A cheese substitute as claimed in claim 1, in which the bland edible particulate comprises protein.

Claim 3: A cheese substitute as claimed in claim 2, in which the bland edible particulate comprises a soya product.

Claim 4: A cheese substitute as claimed in claim 1, in which the bland edible particulate comprises one or more of seed, bean, pulse, pea and lentil product.

Claim 5: A cheese substitute as claimed in claim 3, in which the soya product comprises about 70%, the vegetable fat component about 17%, the salt component about 12% and the parmesan flavouring about 0.5%, by weight of the cheese substitute.

Claim 6: A cheese substitute as claimed in claim 3, in which the soya product is in the form of a flour.

Claim 7: A cheese substitute as claimed in claim 3, in which the soya product comprises a soya bean or soya flour derivative.

Claim 8: A cheese substitute as claimed in claim 6, in which the soya product component is a full fat, pre-cooked soya flour.

Claim 9: A cheese substitute as claimed in claim 1, in which the vegetable fat component comprises a fully hydrogenated or partially hydrogenated vegetable oil.

Claim 10: A cheese substitute as claimed in claim 9, in which the vegetable fat comprises vegetable shortening.

Claim 11: A cheese substitute as claimed in claim 1, in which the vegetable fat component comprises palm oil

Claim 12: A cheese substitute as claimed in claim 1, in which the salt component comprises a natural salt and/or a processed salt substitute.

Claim 13: A cheese substitute as claimed in claim 1, in which the salt component has a grain size that has limited intrusive effect in the cheese substitute texture.

Claim 14: A cheese substitute as claimed in claim 1, in which the parmesan flavouring constitutes 0.1-1% by weight of the cheese substitute.

Claim 15: A cheese substitute as claimed in claim 1, in which the cheese substitute further comprises one or more of colourant, preservative, thickener, texturant, regulator and other additives.

Claim 16: A cheese substitute as claimed in claim 1, in which the cheese substitute comprises particles in the range up to 3mm in dimension.

Claim 17: A method for producing a cheese substitute comprising softening but not liquefying a volume of fully hydrogenated or partially hydrogenated vegetable fat component and blending that softened, non-liquid vegetable fat component with bland edible particulate, a salt component and parmesan flavouring to form a composition comprising, by weight, 60-95% bland edible particulate, 1-25% vegetable fat component, 1-15% salt component and parmesan flavouring to a desired proportion until a crumbly product is formed by the coagulation of the vegetable fat component with the other ingredients.

Claim 18: A method as claimed in claim 17, in which the vegetable fat component is warmed to facilitate production.

Claim 19: A method as claimed in claim 17, in which the components are blended to form the crumbly product.

Claim 20: Cancelled

Claim 21: A method as claimed in claim 17, in which the bland edible particulate comprises protein.

Claim 22: A method as claimed in claim 21, in which the bland edible particulate comprises a soya product.

Claim 23: A method as claimed in claim 17, in which the bland edible particulate comprises one or more of seed, bean, pulse, pea and lentil product.

Claim 24: A method as claimed in claim 22, in which the soya product comprises about 70%, the vegetable fat component about 17%, the salt component about 12% and the parmesan flavouring about 0.5%, by weight of the cheese substitute.

Claim 25: A method as claimed in claim 22, in which the soya product is in the form of a flour.

Claim 26: A method as claimed in claim 22, in which the soya product comprises a soya bean or soya flour derivative.

Claim 27: A method as claimed in claim 25, in which the soya product component is a full fat, pre-cooked soya flour.

Claim 28: A method as claimed in claim 17, in which the vegetable fat component comprises a fully hydrogenated or partially hydrogenated vegetable oil.

Claim 29: A method as claimed in claim 28, in which the vegetable fat comprises vegetable shortening.

Claim 30: A method as claimed in claim 17, in which the vegetable fat component comprises palm oil

Claim 31: A method as claimed in claim 17, in which the salt component comprises a natural salt and/or a processed salt substitute.

Claim 32: A method as claimed in claim 17, in which the salt component has a grain size that has limited intrusive effect in the cheese substitute texture.

Claim 33: A method as claimed in claim 17, in which the parmesan flavouring constitutes 0.1-1% by weight of the cheese substitute.

Claim 34: A method as claimed in claim 17, in which the cheese substitute further comprises one or more of colourant, preservative, thickener, texturant, regulator and other additives.

Claim 35: A method as claimed in claim 17, in which the cheese substitute comprises particles in the range up to 3mm in dimension.

**EVIDENCE APPENDIX**

No evidence is submitted.

**RELATED PROCEEDINGS APPENDIX**

There are no related proceedings.